



SERVICE NOTE

EFFECT: MOON CRESTA

NUMBER: 001

October 7, 1980

sheet 1 of 2

The recently released Moon Cresta Owner's Manual, 420-0518, contains errors on sheets 1, 2, and 3 of schematic 800-3121. The following changes should be made:

sheet 1

1. Locate the outside directional guides, they are numbered horizontally and lettered vertically. In quadrant B7, IC 245 is not used.
2. Output of IC 5D is \overline{LD} .
3. On IC 2L, pin 11 is 6MHZ.
4. On IC 2M, pin 11 is \overline{MLD} .

sheet 2

1. In quadrant A6 of sheet 2, at the top of four buffers is the symbol 90. This should be 9D.
2. On IC 10L, pins 1 and 8 are \overline{TVDC} not TVDC.
3. On IC 6P, pin 1 is \overline{LD} not \overline{LP} .
4. On IC 6H, pin 4 comes from \overline{VSYNC} .
5. On IC 2T, pin 2 is HFLIP1 not MFLIP1.

sheet 3

1. IR1 should be labeled IR2.
2. IR2 should be labeled IR1.
3. F1 5A should be marked not used.
4. IC 9B is not used.
5. On IC 9L, output is pin 7 then to 1K resistor and then to diode.

(continued)

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sheet 2 of 2

sheet 3 cont.

6. D8 should be rewritten 1Z 6.2 instead of 1Z62.

If you have any questions regarding this service note, contact GREMLIN/SFGA Customer Service, (714) 277-8700.

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SERVICE NOTE

EFFECT: MOON CRESTA
LOGIC BOARD CONVERSIONS

NUMBER:

1 OF 3

DECEMBER 22, 1980

THIS IS TO INFORM YOU THAT THE MOON CRESTA UPRIGHT GAMES FROM GREMLIN AND FROM SEGA HAVE SLIGHTLY DIFFERENT LOGIC BOARDS. GAMES MANUFACTURED BY SEGA USE AN UNMODIFIED BOARD. BECAUSE GREMLIN USES A DIFFERENT MONITOR, THE LOGIC BOARD MUST BE MODIFIED FOR ITS GAMES. THIS SERVICE NOTE EXPLAINS THE DIFFERENCES AND HOW ONE BOARD CAN BE MODIFIED TO ANOTHER, AND VICE VERSA. FOLLOW THESE INSTRUCTIONS CAREFULLY TO MODIFY THE LOGIC BOARD: (REFER TO DRAWING ATTACHED)

1. TAKE A 74LS04 IC AND REMOVE PINS 1,2,8,9,10,11,12 AND 13.
2. INSTALL THE 74LS04 ON TOP OF IC 6H BY SOLDERING PINS 5,7 AND 14 TO THE CORRESPONDING PINS BELOW.
3. STRAIGHTEN PINS 3,4 AND 6 ON THE 74LS04 OUT TO THE SIDE.
4. INSTALL A JUMPER FROM PIN 3 OF THE 74LS04 IC TO PIN 4 OF IC 6H.
5. REMOVE R2, R3 AND R4.
6. ADD JUMPERS FROM R12 TO R4, FROM R11 TO R3 AND FROM R10 TO R2.
7. ADD JUMPERS FROM PIN 6 ON THE 74LS04 IC TO R2 AND FROM PIN 4 TO R3.
8. LOCATE THE EDGE CONNECTION PADS AND CUT THE TRACE FROM PAD K TO RESISTOR PACK RM2 ON THE UNDER SIDE.
9. CUT THE TRACE FROM PAD S TO GROUND ON THE TOP SIDE. MAKE SURE THE ETCH OUT IS CLEAN AND ACCURATE.
10. INSTALL A JUMPER ON UNDER SIDE FROM PAD K TO D3.
11. AT POSITION VR, REMOVE THE VOLUME POT AND INSTALL A JUMPER FROM PAD 1 ON VR TO PAD P ON THE EDGE CONNECTION PADS.

(CONTINUED)



SERVICE NOTE

EFFECT: MOON CRESTA
LOGIC BOARD CONVERSIONS

NUMBER:

2 OF 3

DECEMBER 22, 1980

12. INSTALL A JUMPER FROM VR PAD 2, TO V ON THE EDGE CONNECTION PADS.
 13. INSTALL A JUMPER FROM VR PAD 3 TO S ON THE EDGE CONNECTION PADS. ALSO,
INSTALL A 1K, $\frac{1}{4}$ W RESISTOR FROM VR PAD 3 TO THE SIDE OF R42, AS SHOWN.
- TO REMOVE THE MODIFICATION ON A GREMLIN MOON CRESTA BOARD FOR USE IN A SEGA GAME, SIMPLY REVERSE THE ABOVE PROCESS.

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